Model IXLdp Ultra-Low Differential Pressure Transmitter

APPLICATIONS:
HVAC, fume hood control, lab/clean room pressurization, laminar flow, furnace/stack draft, leak detection, or pollution monitoring, medical equipment, fan tracking, filter monitoring and velocity measurements

FEATURES:
• Certified 0.25% and 0.5% accuracy
• 0.1”-200” H₂O pressure ranges
• High overpressure protection
• Optional FM approval for hazardous locations
• NEMA 4X metal construction
• Six types of output signals available
• 5:1 turndown option
• Variable dampening option
• On-board voltage regulation allows use of lower cost, non-precise, unregulated power supply
• Hazardous environments

PERFORMANCE SPECIFICATIONS
Ref. Temperature: 70°F ±2°F (21°C ±1°C)
Accuracy Class (of Span):
Two Options: ±0.25%, ±0.5%
Includes non-linearity (Terminal Point Method), hysteresis, non-repeatability, zero offset and span setting errors.
Stability – Max. Change (Span/year): ±0.25 %
Standard Ranges (Inches W.C.)
Unidirectional Ranges:
Differential or Gauge
0/0.10 0/0.25 0/0.50
0/0.25 0/0.50 0/1.00
0/0.50 0/1.00 0/2.00
0/1.00 0/3.00 0/5.00
Bidirectional Ranges:
Compound
±0.05 ±0.10 ±0.20 ±0.25
±0.50 ±1.00 ±2.00 ±2.50
±3.00 ±5.00 ±10.00 ±15.00
±20.00 ±25.00 ±50.00 ±100.00
Custom Ranges:
Special range calibrations – see options
Response Time:
Standard: 250ms
Optional variable damping (0-30 sec) – see options

ENVIRONMENTAL SPECIFICATIONS
Temperature Limits:
Storage: -40 to 210°F
Operating: -20 to 185°F
XFM Operating: -4 to 104°F
Compensated: 0 to 160°F
Relative Humidity: 0 to 95%

Thermal Coefficients:
0.25% Acc.
ZERO ±0.01% Span/F
SPAN ±0.02% Span/F

0.5% Acc.
ZERO ±0.01% Span/F
SPAN ±0.02% Span/F

Vibration Sweep:
Less than 0.2% Span/g temporary effect 10-130 Hz

FUNCTIONAL SPECIFICATIONS
Overpressure Limits:
Proof differential pressure: 20 psid
Burst differential pressure: 50 psid
Maximum static (line) pressure: 100 psi
Static pressure effect: less than 0.5% Span

Mounting Position Effect:
1” W.C. and higher 0.1% Span/g
0.25” up to 0.5” W.C. 0.5% Span/g
0.1” W.C. 0.8% Span/g

Note: Calibrated horizontally standard unless otherwise specified. Mounting Position Effect easily corrected with zero potentiometer.

ELECTRICAL SPECIFICATIONS
Output Signal:
Power:
4-20 mA (2 wire) 12-36Vdc
0-5 Vdc (3 wire) 12-36Vdc
1-5 Vdc (3 wire) 12-36Vdc
1-6 Vdc (3 wire) 12-36Vdc
1.25 Vdc (3 wire) 12-36Vdc
±5 Vdc (3 wire) 12-36Vdc

Output Signal is Independent of Power Supply Changes: 12-36 Vdc range without effect on output signal

Reverse Wiring Protected
Internal Zero and Span: ±10% F.S. Adjustment
Supply Current: 2.6mA typical for voltage output
(Continued on other side)

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**Model IXLdp Ultra-Low Pressure Differential Transducer/Transmitter**

Warm-up Time:
- Full specification: Less than one second
- Fast Response, Turndown & Variable Dampering Optional

**PHYSICAL SPECIFICATIONS**

Enclosure:
- NEMA 4X, 300 series stainless steel

Process Connections:
- Two ¼ NPT female
duct connections isolated from the electronics.
- Separate access cover for terminal connections

Media:
- Clean, dry and noncorrosive gas (consult factory for use on other media)
- NOT FOR USE ON LIQUIDS

**OPTIONS**

- (XX1) – Fast Response: 8 ms
- (X41) – 5:1 Turndown
- (X1D) – Variable dampering (0-30 sec.)
- (XNH) – Paper tag
- (XCL) – Custom pressure range calibration
- (XF M) – FM approval

• Consult factory on other pressure range, temperature compensation, packaging variations or response times

**Factory Mutual (FM)-approvals**: Use "XF M" option

- Intrinsically Safe:
  - Class I, II, III; Div. 1
  - Groups A, B, C, D, E, F and G

  When properly installed with an approved FM intrinsically safe barrier.

- Non-Incendive:
  - Class I, II, III; Div. 2
  - Groups A, B, C, D, E, F and G

  *Note:
  - FM option (XF M) cannot be combined with options X1D or XX2.

**How To Order**

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<th>X</th>
<th>F</th>
<th>O</th>
<th>2</th>
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- IXLdp units include 9 point NIST traceable calibration certificate

**Load Limitations 4-20mA Output Only**

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<tr>
<th>Loop Resistance (Ω)</th>
<th>0</th>
<th>10</th>
<th>20</th>
<th>30</th>
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<tr>
<td>0</td>
<td>12V+ (.022A x R L)</td>
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<tr>
<td>R L</td>
<td>RL  = R S + R W</td>
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<tr>
<td>R L</td>
<td>Loop Resistance (ohms)</td>
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<td>R S</td>
<td>Sense Resistance (ohms)</td>
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<tr>
<td>R W</td>
<td>Wire Resistance (ohms)</td>
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**DIMENSIONS (in inches)**

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